

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number:	14-504
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PROJECT INFORMATION

Project Title: Invasive Exotic Grass Mitigation in Pima Canyon, Santa Catalina Mountains, Coronado National Forest

Region and Game Management Unit: V / 33

Local Habitat Partnership Committee (LHPC):

- Tucson

Was the project presented to the LHPC?

YES☒ **NO**☐

Has this project been submitted in previous years? YES ☐ NO ☒

If Yes, was it funded? YES ☐ NO ☐ → **Funded HPC Project #(s):**

Project Type: Habitat Restoration / Vegetation Treatment

Brief Project Summary: This project will fund herbicide treatments to reduce infestations of invasive exotic buffelgrass (*Pennisetum ciliare*) and fountain grass (*Pennisetum setaceum*) in Pima Canyon on the Santa Catalina Ranger District (SCRD) of the Coronado National Forest (CNF).

Pima Canyon is one of the highest-value natural areas on the Coronado National Forest. It occurs in the endemic Sonoran Desert on the lower elevations of the Santa Catalina Mountains and features unique upland and riparian vegetation and associated wildlife, important view sheds, recreation opportunities, and proximity to the wildland-urban interface. Pima Canyon lies within the Pusch Ridge Wilderness (PRW) and the Big Horn Sheep Management Area.

Buffelgrass and fountain grass are aggressive invasive African grasses that have spread across the entire southwest-facing slopes of the Santa Catalina Mountains, including Pima Canyon. The CNF has been using Arizona State Forestry Division (ASFD) Department of Corrections (DOC) crews to manually remove buffelgrass and fountain grass in Pima Canyon for several years. These efforts have reduced these exotic grasses somewhat, but have not been adequate to address the scale of the infestation. Many areas have not yet been treated, and some treated areas have become reinfested from the persistent seedbank. A survey conducted in May of 2014 showed 180 infested acres remain in need of treatment in Pima Canyon.

This project contributes to the Arizona HPC *Priorities for Habitat Enhancement and Wildlife Management* for bighorn sheep: “Coordinate with federal and state land management agencies to implement invasive and noxious weed control and rehabilitation efforts in bighorn sheep habitat.”

Big Game Wildlife Species to Benefit: Desert bighorn sheep, Sonoran Desert tortoise, desert mule deer, white-tailed deer, javelina

Implementation Schedule (Month/Day/Year): <u>Project Start Date:</u> January 2015 <u>Project End Date:</u> December 2016	Environmental Compliance: NEPA Completed: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Projected Completion Date: _____ State Historic Preservation Office - Archaeological Clearance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Projected Completion Date: _____ Arizona Game and Fish Department EA Checklist: N/A <input checked="" type="checkbox"/> To be Completed by: _____ Projected Completion Date: _____	
PROJECT FUNDING		
Special Big Game License Tag Funds Requested:	\$10,260	
Cost Share or Matching Funds:	\$ 39,614	
Total Project Costs:	\$ 49,874	
PARTICIPANT INFORMATION		
Applicant (please print): Sharon Biedenbender Invasive Species Coordinator, Coronado National Forest	Address: Coronado National Forest 300 West Congress Street Tucson, AZ 85701	E-mail: sbiedenbender@fs.fed.us
Telephone: 520- 559-2762	Date: 08/28/2014	
AGFD Contact and Phone No. (If applicant is not AGFD personnel): Ben Brochu (520) 591-7636		
Project has been coordinated with: Tucson HPC		

NEED STATEMENT – PROBLEM ANALYSIS:

Buffelgrass infests thousands of acres on the southwest slopes of the Santa Catalina Mountains on the Coronado National Forest, including the Big Horn Sheep Management Area and the Pusch Ridge Wilderness Area. Fountain grass is a serious problem in canyon bottoms in particular and to a lesser extent on slopes and ridges. Current research indicates that buffelgrass is spreading at exponential rates in the Santa Catalina Mountains. Through competitive exclusion and increased fire frequency and intensity, these exotic, highly invasive grasses threaten the existence of the endemic saguaro/palo verde Sonoran Desert ecotype and the unique wildlife, wilderness, recreation, and economic values it represents. This area is habitat for the desert bighorn sheep and other game species such as javelina, mule deer, white-tailed deer, dove and quail, and for the Sonoran Desert tortoise.

A long-term, landscape-scale, adaptive, integrated control program is necessary to reduce existing buffelgrass and fountain grass infestations and prevent them from spreading. The Coronado National Forest Invasive Species Program encompasses multiple years, methods and funding

sources. Both manual and herbicide methods are utilized depending on the time of year (plant phenology) and infestation size and location.

All invasive weed projects require a commitment to retreatment. It is critical to understand that buffelgrass seeds persist in soil for three-to-five years, making it imperative that initial treatments must be followed up for several subsequent years in order to prevent reinfestation and insure long-term success. Then periodic monitoring and spot treatments can maintain effective control.

PROJECT OBJECTIVES:

- 1) Preserve the ecological integrity of the Sonoran Desert in the Santa Catalina Mountains.
- 2) Preserve habitat for big game species and other wildlife that depend on native Sonoran Desert vegetation.
- 3) Reduce the risk of catastrophic wild fires that would destroy this ecosystem and its wildlife, wilderness, recreation, scenic, and economic values.
- 4) Reduce the risk of catastrophic wild fires that threaten homes, property and public health at the wildland-urban interface.

PROJECT DESCRIPTION AND STRATEGIES:

- 1) Prioritize high-value treatment sites based on natural resources at risk, fire danger at the WUI, opportunities to limit spread, and accessibility.
- 2) Treat buffelgrass and fountain grass infestations with the herbicide glyphosate during phenologically appropriate windows of opportunity, typically following summer rains, but also during some warm, wet winters. Dormant winter treatments using the herbicide imazapyr to treat buffelgrass have also been shown by recent U. of A. research to be an effective option.
- 3) Retreat infested sites to insure treatment efficacy and success.
- 4) Monitor treatment sites over the long term and spot treat as necessary.

PROJECT LOCATION:

Pima Canyon, Santa Catalina Mountains, Coronado National Forest, Sonoran Desert

LAND OWNERSHIP AT THE PROJECT SITE(S):

(if the project area is private property, please state specifically and provide the landowner's name)

- Coronado National Forest

IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?

YES[] NO[] N/A[x]

HABITAT DESCRIPTION:

Sonoran Desert Upland, 10-13 inches annual precipitation, shallow hills and basalt hills soils along southwest-facing slopes and drainages in the lower elevations (3000-5000 ft) of the Santa Catalina Mountains; major species include saguaro cacti and other succulents, foothills palo verde, brittlebush and other desert shrubs, native grasses and forbs.

ITEMIZED USE OF FUNDS:

Funds will be used for herbicide treatments on buffelgrass and fountain grass in Pima Canyon in the Santa Catalina Mountains on the Coronado National Forest. Funds will be allocated through an existing Arizona State Forestry Division Department of Corrections Agreement.

Requested from HPC

ASFD DOC crew labor to spray herbicide, 2 days @ \$2,255/day	\$4,510
Chemicals (herbicide, adjuvants)	\$750
Pack animal or helicopter delivery of supplies	\$5,000
Total HPC Request 2014	\$10,260

Forest Service Match

ASFD DOC crew labor to spray herbicide, 8 days @ \$2255/day	\$18,040
Project oversight (District Invasive Species Coordinator 10 days @ \$343	\$3,430
Site Surveys & Mapping (GIS Specialist, 20 hrs. @ \$37.94/hr.)	\$759
Project Administration (Forest Invasive Species Coordinator/COR, 5 days @ \$347/day)	\$1,735
Grants & Agreements Officer, 2 days @ \$325/day	\$650
ASFD DOC crew labor for manual removal, 10 days @ \$1500/day	\$15,000
Total Forest Service Match	\$39,614

Special Big Game License Tag Funds

\$10,260

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

\$39,614

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Arizona State Forestry Division – Department of Corrections crews for invasive species herbicide treatment

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES[] NO[] N/A[x]

PROJECT MONITORING PLAN:

The Coronado National Forest and Santa Catalina District Invasive Species Coordinators will monitor project progress throughout implementation, at completion, and as needed over time for long-term success.

PROJECT MAINTENANCE:

The Coronado National Forest and Santa Catalina District Invasive Species Invasive Species Coordinators will continue to seek funds to maintain the project over time.

PROJECT COMPLETION REPORT TO BE FILED BY:

Coronado National Forest Invasive Species Coordinator

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

TREE CLEARING/REMOVAL PROJECTS (please use the worksheet below):